

BOAHC Meeting Deck

17 December 2024

5:00 PM via Zoom

Agenda

- Housekeeping items (5 min) – Michelle Keil
- Scheduling Future Meetings (~15 min) - Committee
 - Public Input/Listening Session (January)
 - Additional Committee Meetings (January)
 - Information Meeting (February)
- Sub-Team Updates for Key Topics/Issues/Questions (~100 min) – Committee
 - Progress report or, if ready, propose recommendation(s)
- Adjourn

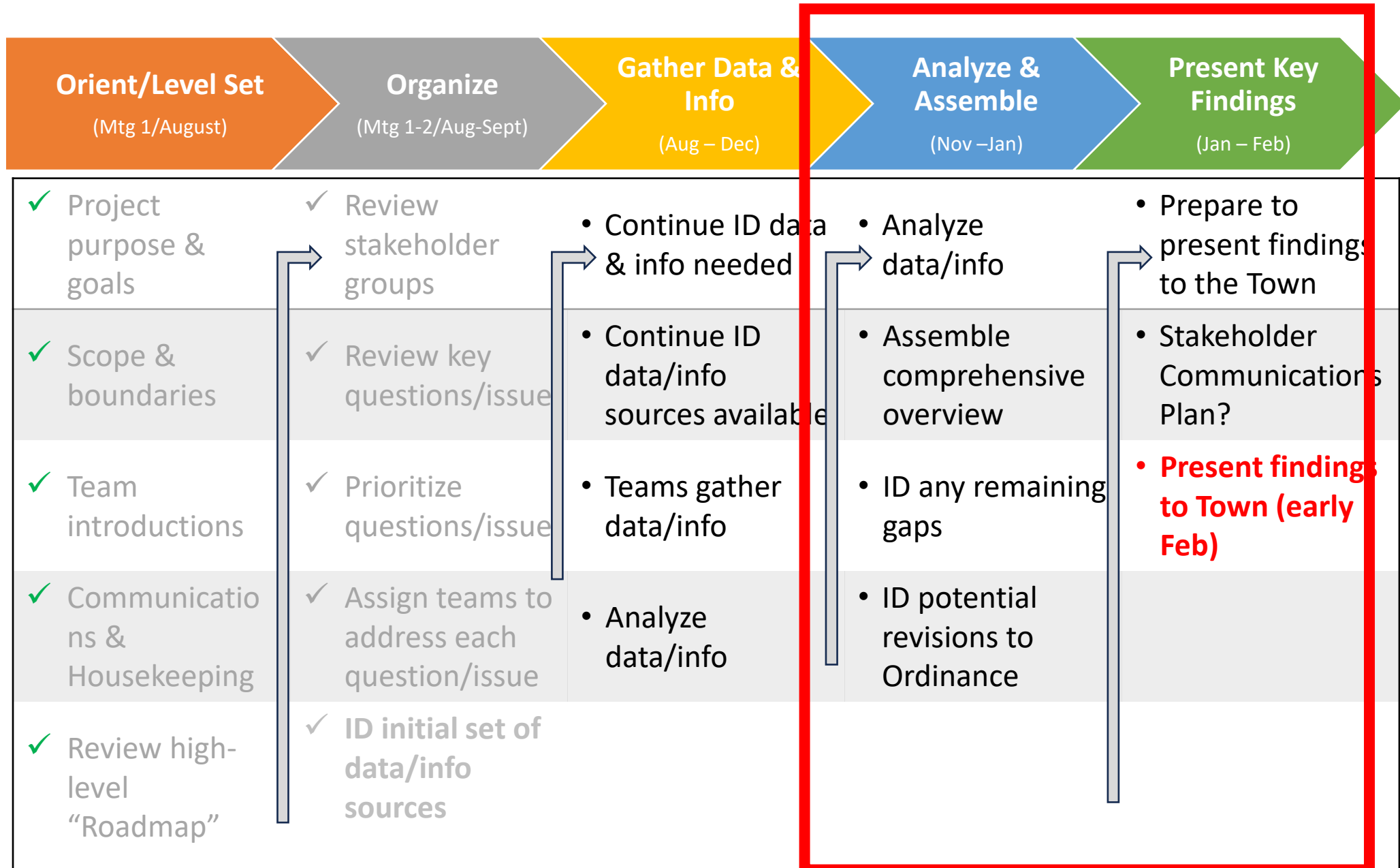
Join Zoom Meeting <https://us02web.zoom.us/j/83151102119?pwd=yzKWMXZDZW42bKnd7aDkFOhq25jKmv.1>

Meeting ID: 831 5110 2119

Passcode: 408690

Dedicated BOAHC committee email address: (BOAHC2024@gmail.com)

REVISED: High-Level Boating Ordinance Committee Roadmap



Scheduling Future Meetings

Existing meetings –

- BOAHC meetings: Jan 21 and Feb 18, 2025

Town Board mtgs –

- Wed, Jan 8
- Wed, Feb 12

New meetings –

- Public Input/Listening Session – *Proposed*: Tuesday, Jan 14, 6:00-7:30
- Additional Committee Meetings (January)
- Informational Meeting (February)

Environmental Impacts

Michelle

What Is Special Here > Loons > Population In Decline

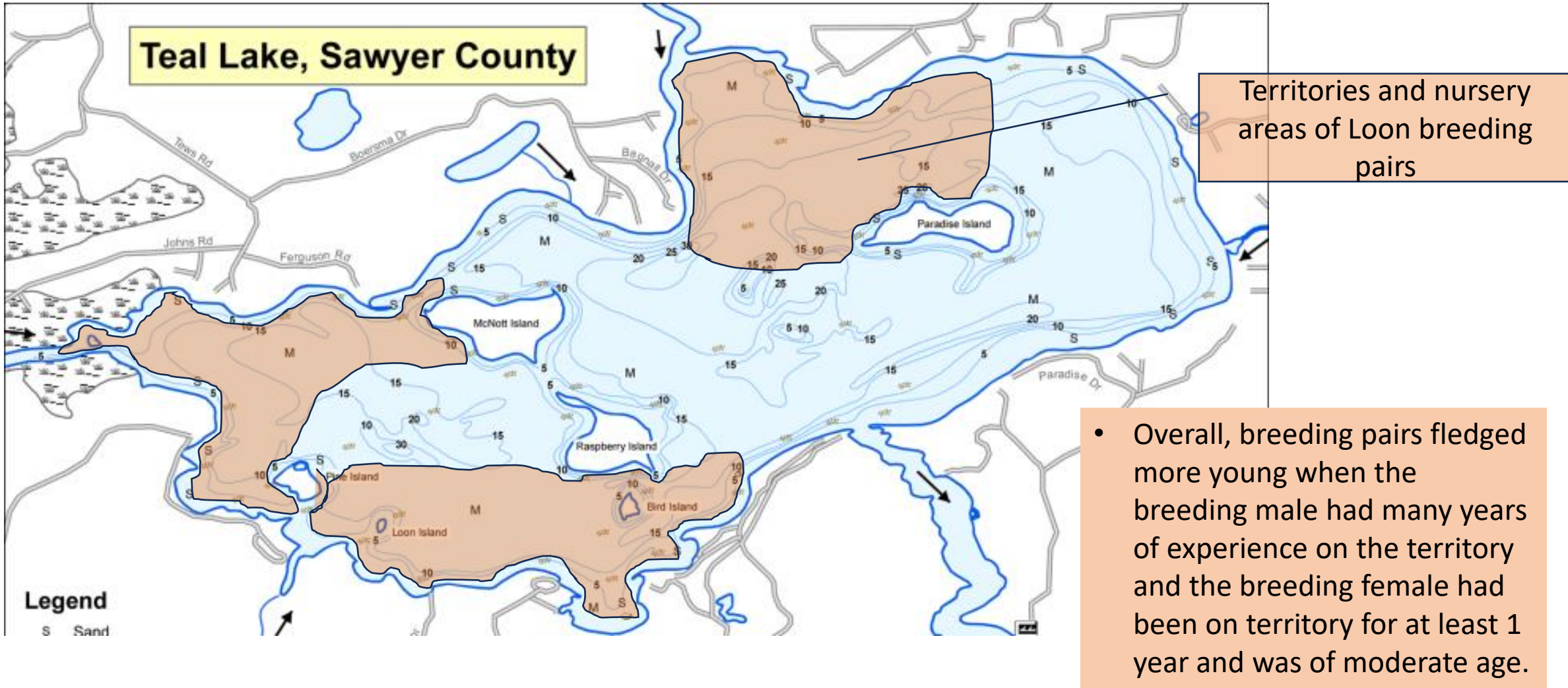
Loons depend on undisturbed islands/lakeshores with native vegetation for nesting

- *Nest at the water's edge.*
- *Young chicks are vulnerable to wind and wave action, so a sheltered nursery means one protected from wind and waves*
 - Lakes with...peninsulas, protected coves, and islands can often support more than one pair of nesting loons.
 - *Disturbance during critical times...can lead to abandonment of nests/lakes.*
 - Vulnerable to harassment/recreational use near nests and nursery areas
 - *PWCs present a threat – blunt trauma from collisions and proximity to shorelines at high speeds*

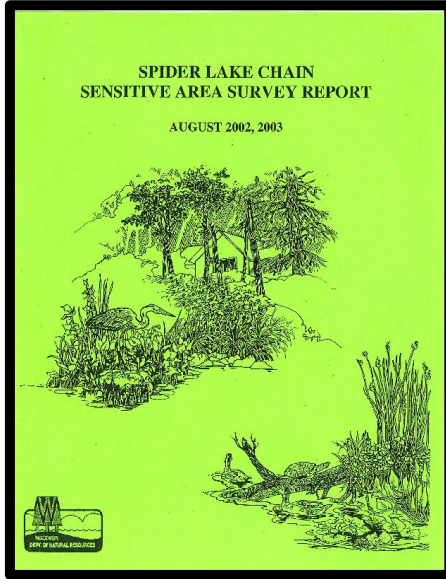


- “Disturbance by human intrusion is...difficult to quantitatively measure because loons can acclimate to some changes.” “...at least 14 studies [that link] increasing rates of recreational use and development with decreasing loon productivity and presence while 12 other studies demonstrate the loon’s ability to [adapt] to offset changes.”

Environmental Impacts: Quiet Lakes Example/Loons

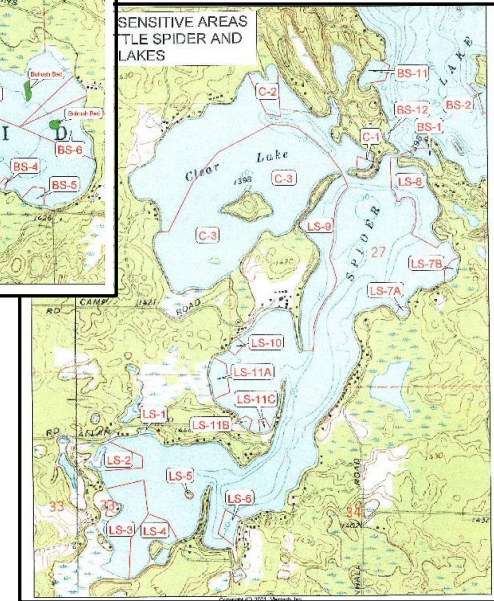
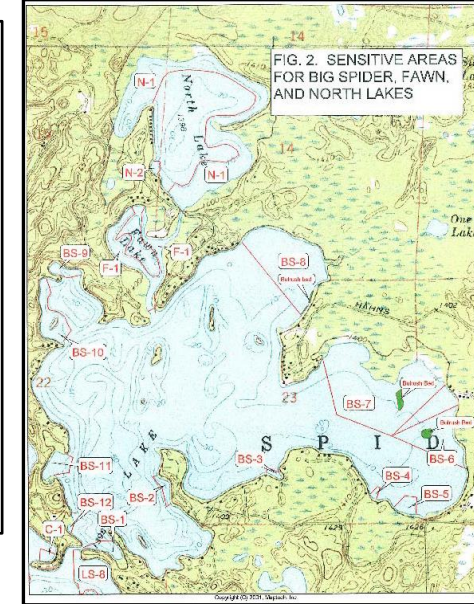


Environmental Impacts: Spider Lake Chain Example



Identified 31 sensitive areas on the Spider Lake Chain (red numbers on the maps)

- Essentially 100% of the sites...mucky bottom substrate, use as spawning/nursery area and use by loons and other wildlife
- “Highly flocculent bottom sediment is found at many sites in Little Spider and Clear Lakes.”

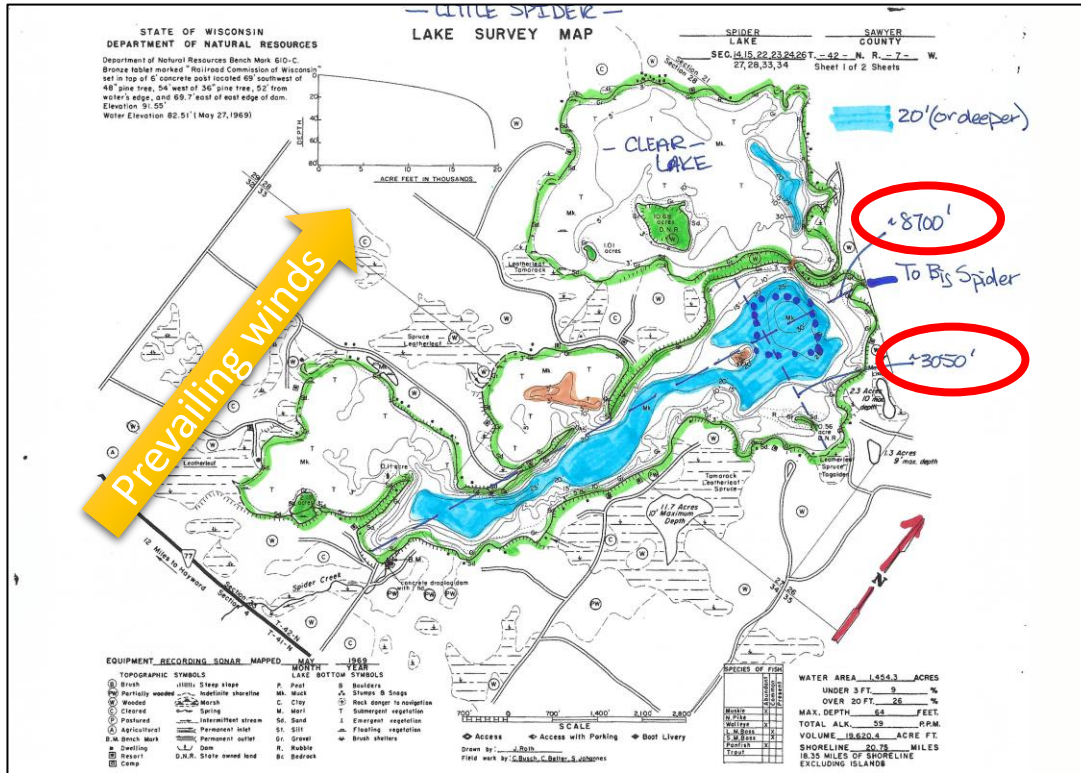


Major focus on minimizing shoreland/shoreline disturbances, preventing sediment from reaching the lakes and protecting aquatic and shoreland vegetation

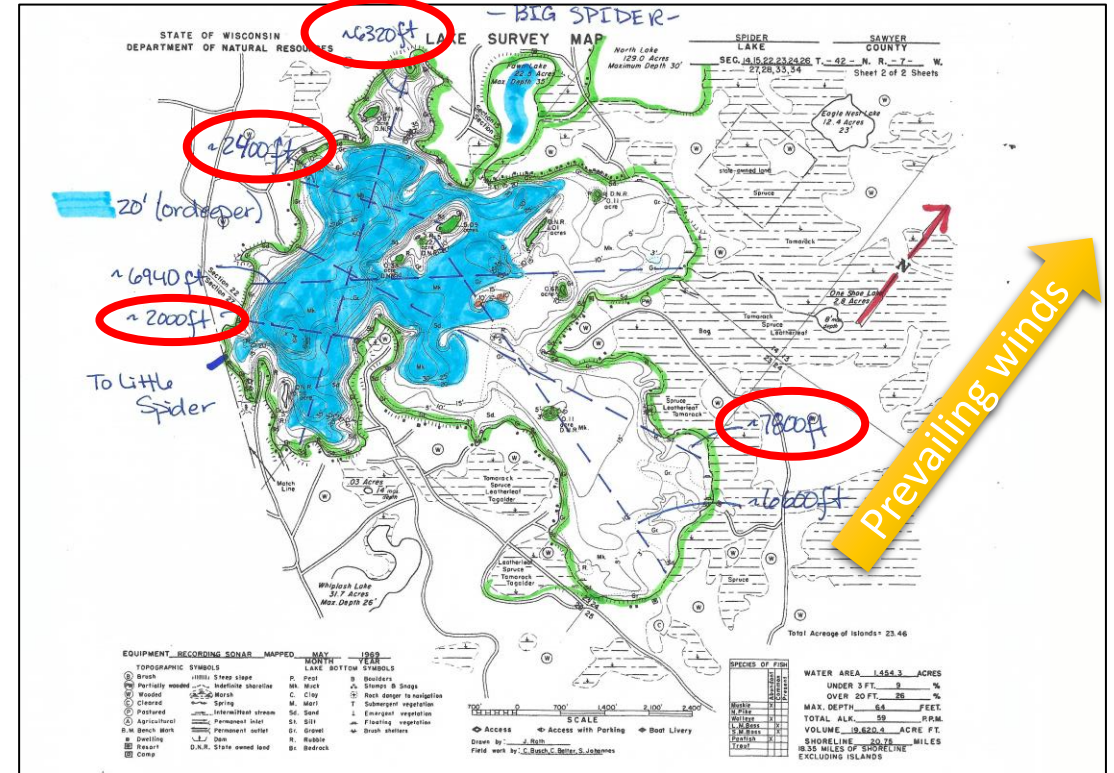
Revisiting Fetch

From Study #1:

- “Because wind waves are persistent, in many settings they represent a more significant source of shoreline impact than boat wakes.”
- “...a 10mph wind blowing over a mile of open water is a common occurrence...”



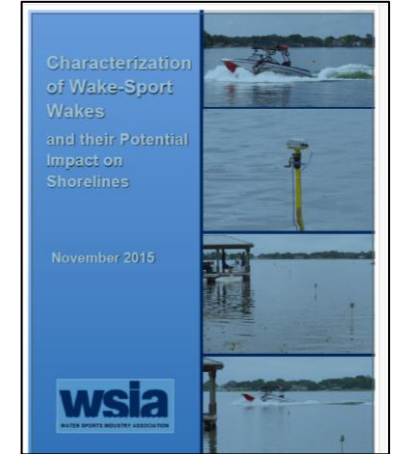
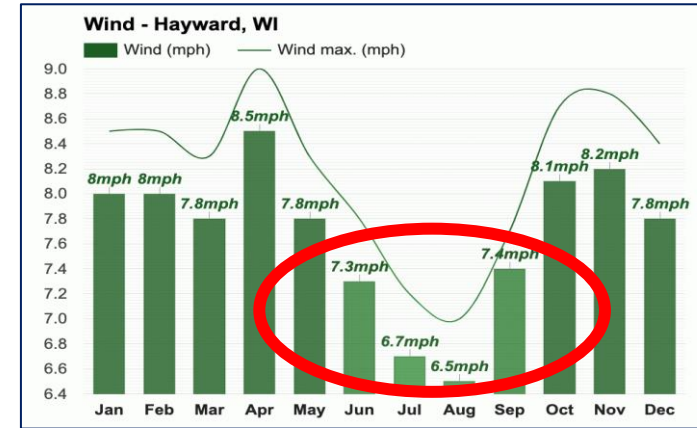
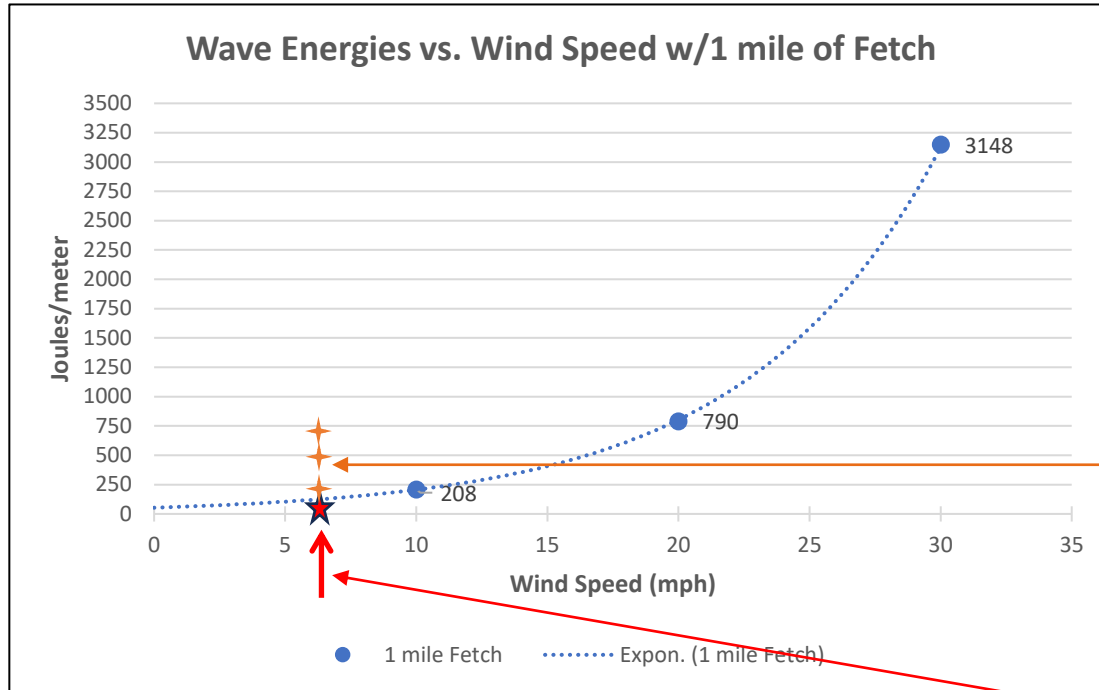
Little Spider



Big Spider

Comparison: Boat Wake Energies To Wind Wave Energies

“Energy along one meter of wind wave front over one minute of time”



From the WSIA report, **wake energies** measured at 210' from the boat, shallow water:

- **Cruising mode: 230 J/m**
- **Wake board mode: 478 J/m**
- **Wake surf mode: 692 J/m**

Average wind speeds in Hayward:

- June = 7.3 mph
- July = 6.7 mph
- Aug = 6.5 mph
- Sept = 7.4 mph

Environmental Impacts: (preliminary look) Sediment Resuspension

Impact of Lake Navigation - Sediment Suspension Study: Lake Masson and Sand Lake Cases

- Prepared by Raymond, S., and Galvez, R., 2015, Laval University
- Document specifically examines the impact on the sediment resuspension caused by wake boats

“Studies have shown the impact of motorboats on lake ecosystems. **Several factors affect the impact of a boat's passage such as the speed of navigation, the strength**

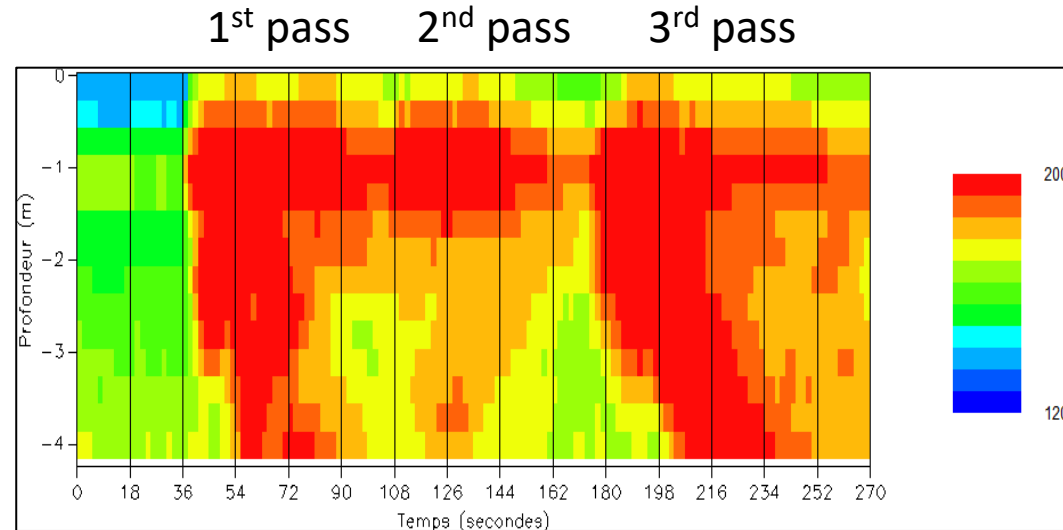
and type of engine, geometry of the propeller, geometry of the hull, the cohesion of the sediments, the size and mass of the particles forming sediments, water depth, lake stratification.”

- *“Wave action and turbulence as a result of shallow water navigation in lakes produce obvious sediment suspension and release of nutrients and pollutants into the water column.” (Alexander and Wigart, 2013 ; Bastien et al., 2009; Gelinas et al., 2005; Wang et al., 2009; Zoumis et al., 2001)*
- *“Bottom sediments are often phosphorus reservoirs in lakes, when boating, if suspended then the boats could even contribute significantly to the transfer of phosphorus into the water column.”*



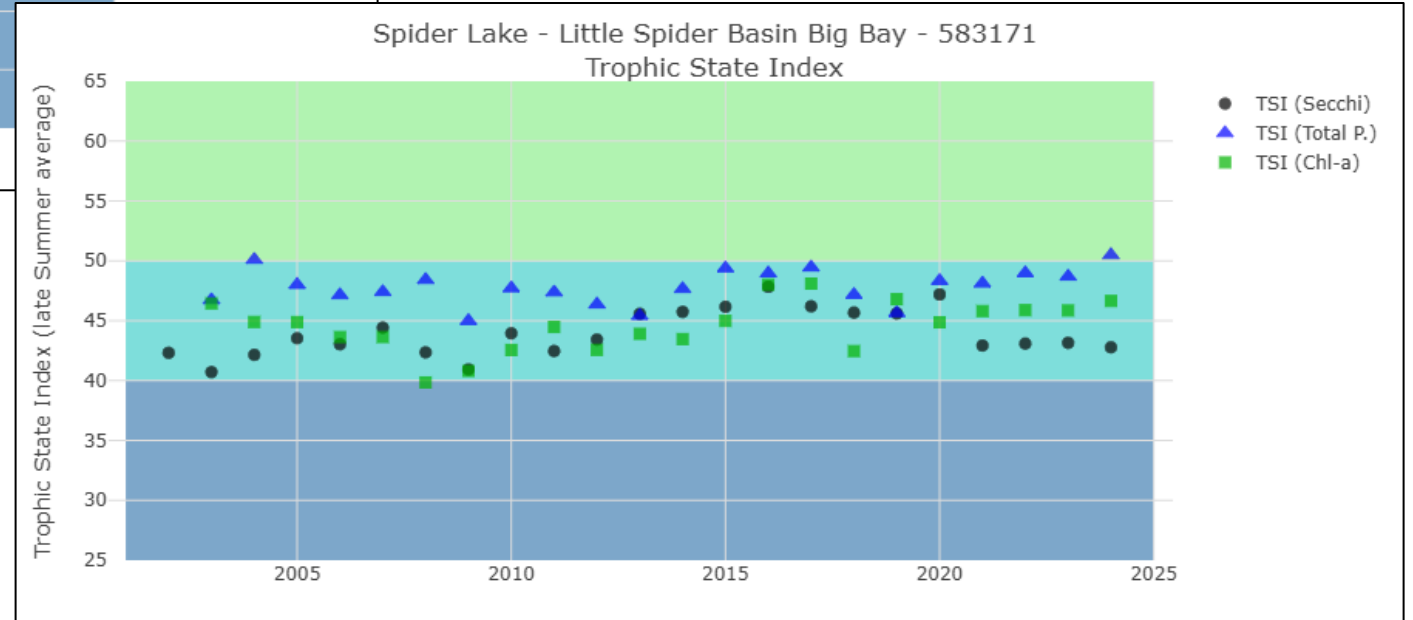
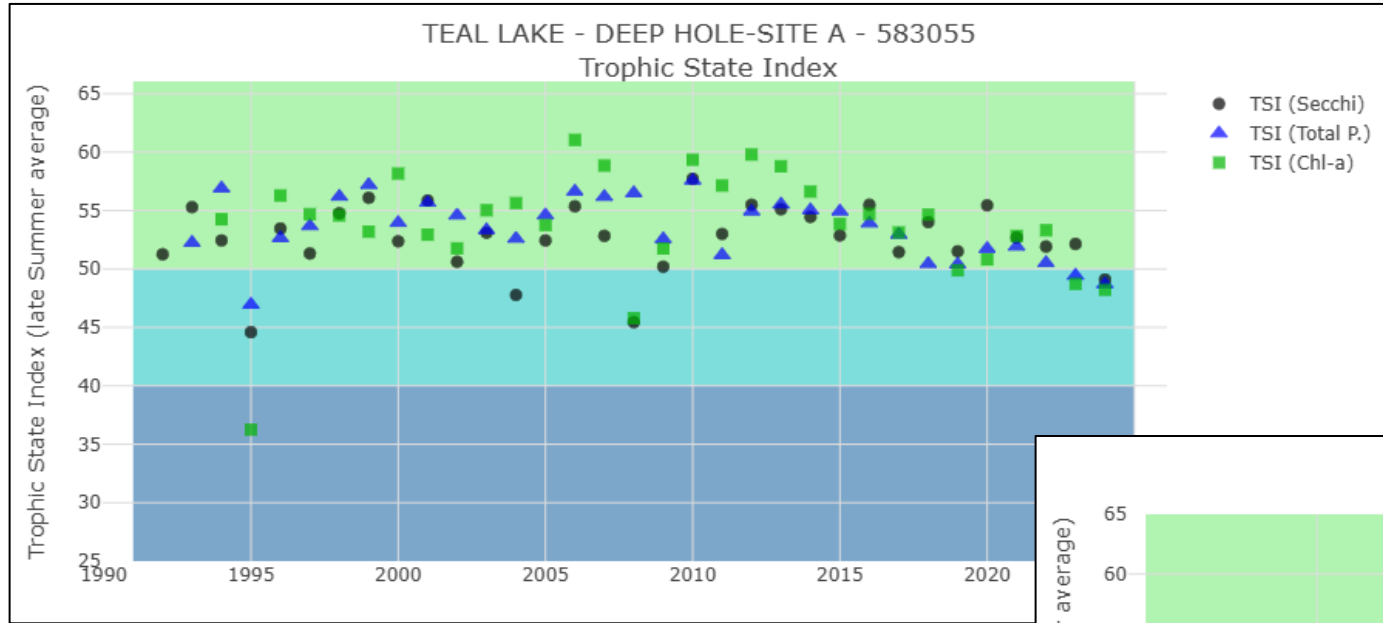
Environmental Impacts: (preliminary look) Sediment Resuspension

Figure 9: Zoom of Figure 8a on the passages of boats in Wake surf mode for the 2nd day on The Sand Lake



- **“Wake Surfing practices ...have a significant impact on the water column and would increase water turbidity, total phosphorus and orthophosphate concentration, dissolved oxygen near the bottom and thus the potential for oxidation-reduction and would reduce the sediment consolidation.”**
- “Total phosphorus release and especially orthophosphate may be a factor in premature aging of lakes called eutrophication. **This increase in phosphorus in the water column can also promote the development of cyanobacteria (Blue-Green Algae)...**”
- ***“In terms of depth, the results show that at low and high boat speeds...there is a limited impact on the water column not exceeding (3-6 ft) deep.”***
- “Wake surfing and wake board practices impact the water column up to **16 ft**. This **disturbance has also been quantified** over time, allowing to determine a **duration going to vary between 70 and 80 seconds.**”

What Is Special Here > Water Clarity/Quality > Results

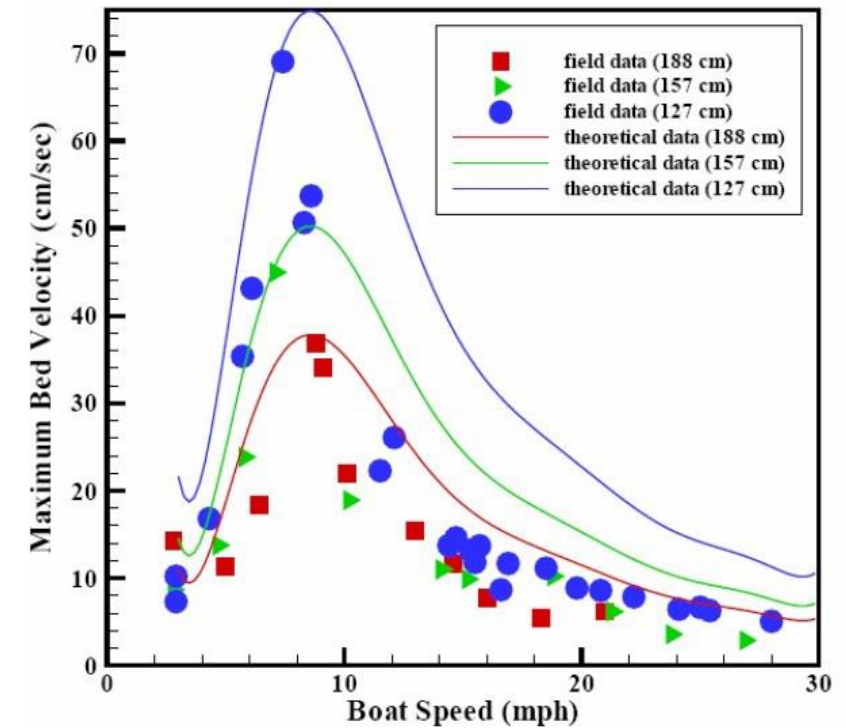


Information presented by the Boating Ordinance Ad-Hoc Committee is intended for the purpose of education and to stimulate discussion. The information is part of an iterative process and should not be construed as a recommendation or position statement of the Committee.

Environmental Impacts: (preliminary look) Sediment Resuspension

- “Anthony and Downing (2003) observe an increase in turbidity for lake depths ranging from 127 to 188 cm (4 – 6 ft). They estimate that low-speed vessels and high-speed vessels do not induce deep water movement compared to intermediate speeds as shown in Figure 12.”
- “The results even indicated that a speed of 30 mph (48 km/h) had less impact than a speed of 3 mph (5km/h).”
- “These studies are in line with our results with respect to impacts at low and high pass speeds.”

Figure 12: Speeds near sediments based on boat speed after Anthony and Downing (2003)



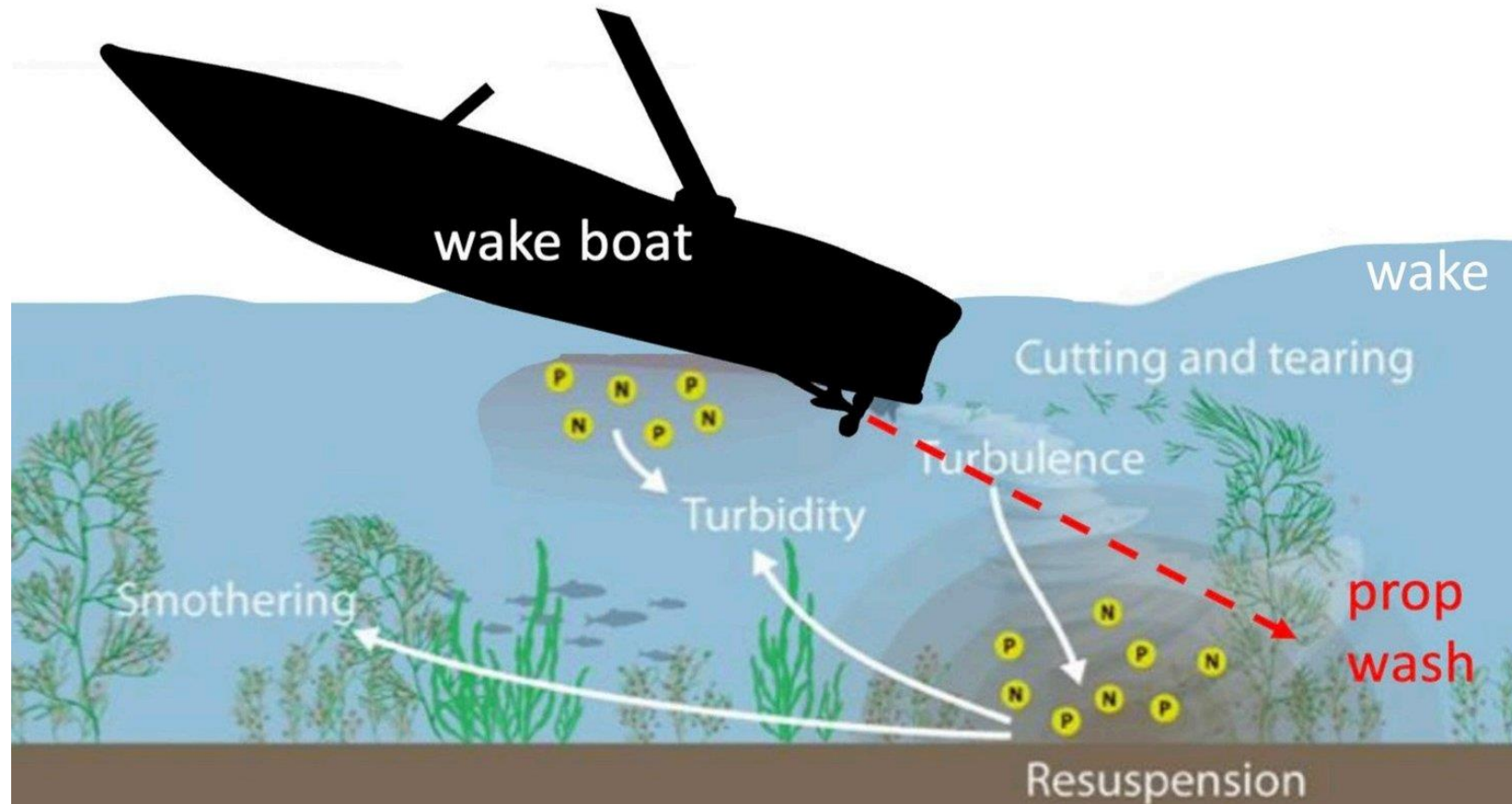
Wake Boats/Boating

WAKE BOATS

- What they do: Create large wakes for the purpose of surfing behind the boat without a tow rope or for extreme wake boarding
- The technology: The boats ride deep in the water by taking on ballast water or by use of hydrofoils to plow through the water and create large wake waves (“enhanced waves”).

- Dave Mickelson and Ray Langer (12/17/2024)

WAKE BOATS: Prop energy has impacts down to 20' (at least)



THE HARM (due to prop wash)

- Prop wash down to 20' or deeper scours the bottom and stirs up sediment, releasing Phosphorus=algae blooms and heavy metals like Mercury
- Destruction of native aquatic plants by smothering and tearing
- Smothering/silting over fish spawning grounds
- Increased turbidity
- Video available on "Lakes at Stake" website shows these affects well

WAKE BOATS: Trail of disturbed sediment



THE HARM (from large waves)

- Shoreline erosion: Waves are 2-3 times larger than other boats and carry 4-9 times the energy
- Destruction of native aquatic plants
- Birds and fish: Near-shore nesting birds (Loons) and fish spawning grounds are negatively impacted.
 - Loons nest very close to water's edge
 - WI Loon population has declined 22% in past 25 years
- Safety: Waves up to 3' can capsize kayaks, paddle boards, etc.

LOON NESTING:

Imagine a 2' wave crashing onto shore



SPIDER LAKE is especially vulnerable

- WI designates highest quality waters as “Outstanding Resource Waters” (ORWs)
- Only 97 of 15,000 WI lakes are ORWs
- TOSL has two ORWs—Spider Lake and Teal Lake
- Key metrics are: Water clarity and quality, ecological and cultural value
- Also: Spider Lake has 31 “Sensitive Areas” per a WDNR Sensitive Area Survey Report done in 2002/2003

SAFETY

- Examples:
 - Last Wilderness Alliance (LWA) has provided examples/reports from northern Wisconsin. There are 31 entries.
 - Injuries like broken ribs and broken legs
 - Fishing people thrown out of their boats
 - Sail boats and paddle boats staying off the water when wake boats are present.
 - Children not wanting to go in water when large waves are washing up on shore.
 - Example from Little Spider: Wake boat wave washed over a pontoon. Wave height was above the railing!

Wake Boat Impact: Compared to other water craft & water activities

IMPACT	Jet Ski	Pontoon Boat	Ski Boat	Wake Boat	Canoe	Paddle Boad	Kayak	Fishing Boat	Swimming	Duck Hunting	Scuba	Sailing	Sea Plane
Safety of Others	Moderate Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact
Shoreline Damage	Minimal or No Impact	Minimal or No Impact	Moderate Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact
Fisheries and Fish Habitat	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact
Waterfowl	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact
Bottom Disturbance (Sediment Resuspension)	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact
Water Clarity (Turbidity)	Minimal or No Impact	Minimal or No Impact	Moderate Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact
Aquatic Invasive Species	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Significant Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Moderate Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact	Minimal or No Impact

Impact when sport is performed in accordance with existing statutes and Ordinances

Significant Impact	
Moderate Impact	
Minimal or No Impact	

DAMAGING AFFECTS DOCUMENTED BY:

- U of M-St. Anthony Falls Laboratory
 - Study #1: Shoreline damage. Report available
 - Study #2: Prop-wash affects. Report due 1st Quarter 2025
- Michigan DNR: Report available
- Last Wilderness Alliance (Wisconsin) See video on web site
- Lakes at Stake video on website

PUBLIC OPINION

- Questions from WDNR Conservation Congress Survey
 - “Do you support wake boat regulation?” (#32)
 - Yes, 10,002 (73%)
 - No, 3,715 (27%)
 - “Prohibit wake boats on lakes less than 1,500 acres, less than 20’ average depth, and closer than 700’ from shore?” (#43)
 - Yes, 10,274 (75%)
 - No, 3,363 (25%)
- Results from Town of Spider Lake Survey (2023)
 - 90% want to preserve North-woods atmosphere
 - 75% support the boating ordinances
 - 73% want wake boats regulated

WISCONSIN LAKES COALITION

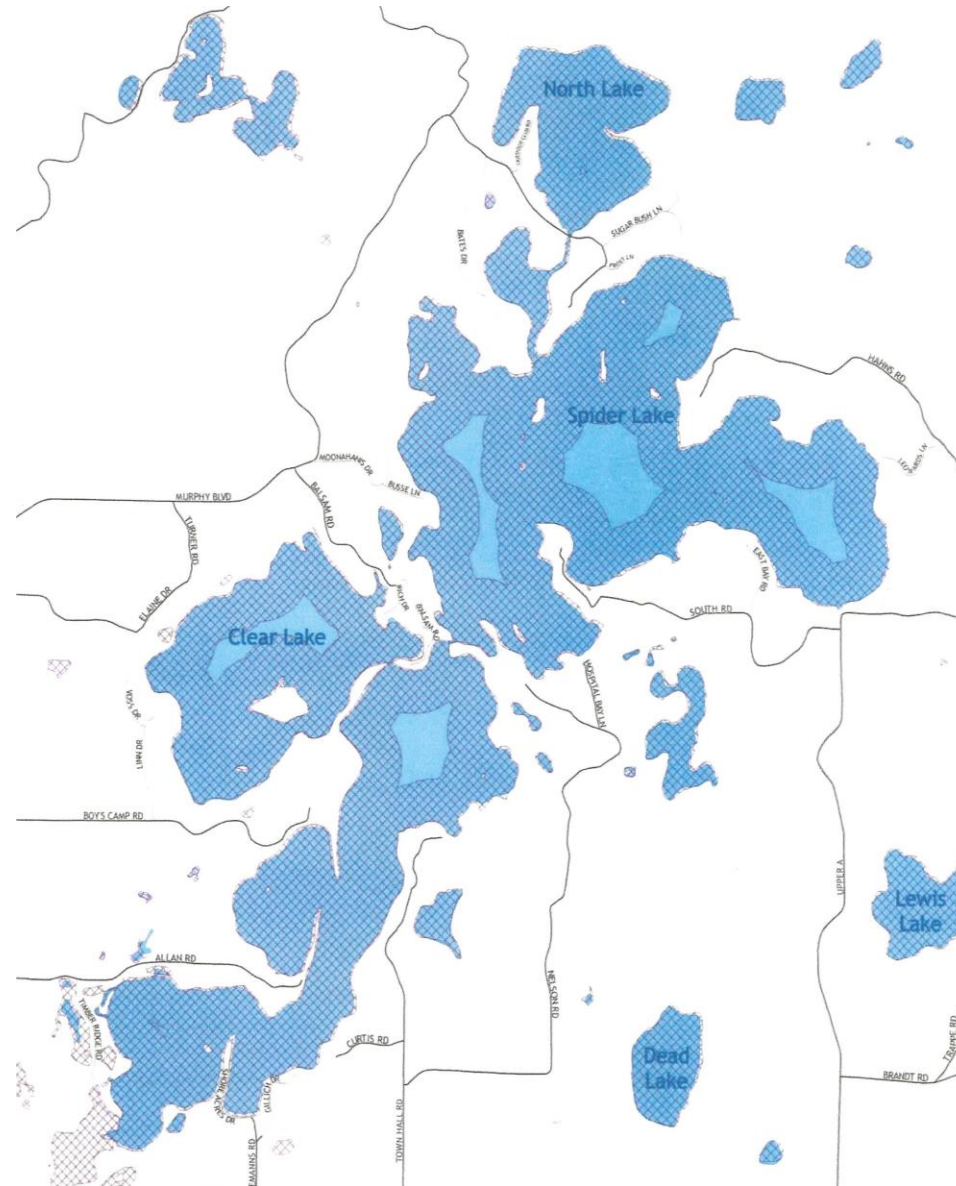
- A statewide coalition of 15 members focused on protecting WI lakes including:
 - “Wisconsin Lakes Association”
 - “Lakes at Stake”
 - “Last Wilderness Alliance”
 - 6 Fishing organizations including “Muskie, Inc.” and “Walleyes for Tomorrow”
 - “Sawyer County Lakes Forum”
 - 2 Conservation organizations
- Coalition principles
 - 700’ from shore
 - 30’ minimum depth
 - Ballast tank decontamination
 - Local control

WAKE BOAT ORDINANCES-

Two Approaches

- Limiting approach:
 - Cannot operate within 700 feet of shore
 - Cannot operate in water less than 20' or 30'
- Exclusion approach:
 - No wake surfing allowed (the Last Wilderness Alliance approach)
- For Town of Spider Lake, not much difference

Spider Chain with 700' Restricted Zone



LOCAL ORDINANCE STATUS

- Towns in **Sawyer County** that have wake boat ordinances (for all waters within towns)
 - Town of Hayward
 - Town of Round Lake (Includes Round Lake)
 - Town of Bass Lake (Includes Grindstone and Lac Court Oreilles)
 - Those all used the 700' exclusion zone
- Town of Cable (total ban)

CREATING A TOWN ORDINANCE REGULATING WAKE SURFING

(per “Last Wilderness Alliance”)

- Wisconsin law authorizes towns to regulate watercraft use on their own lakes (*Wis Stat 30.77(3)*)
- At least 31 Wisconsin towns have already done this to limit or prohibit enhanced wakes created by wake surf boats
- Just as many Wisconsin towns are now in the process of preparing ordinances prohibiting enhanced wakes on their town lakes
- In Wisconsin, Counties cannot regulate watercraft on lakes. Counties can only regulate watercraft on their rivers
- To protect our lakes, it will take action either by Madison or by towns
 - Don't count on Madison to do it

“LAST WILDERNESS ALLIANCE” HAS THE LOCAL ORDINANCE TEMPLATE

- Today, the state of Wisconsin has **31 local communities** that have enhanced wake ordinances. **LWA** has been instrumental in helping **20 of these communities** enact a local ordinance.
- The **LWA** template was created using the Mequon (15 years old) and the Crystal Lake/Rhine (4 years old) **time tested ordinances**. They took these two ordinances and improved them to what has now become the standard ordinance that most use.
- **LWA** has educational presentations along with template ordinances, conditions reports, DNR communication letters and landing sign templates.
- This is the easy part. **It is critically important to get your lake association, town board and local residents to agree and support the ordinance. That is where your efforts are of paramount importance.**

Town of Spider (near Hayward), Sawyer County

Summary of Lakes

Lake	Acre	Depth	AIS	Landing	Notes
1. Spider*	1,198	64 (14 mean)	Banded Mystery Snail, Curly-Leaf Pondweed, Ornamental water lilies (non-native)	1	Very narrow; very limited above 20
2. Lost*	1,264	21 (12 mean)	Banded Mystery Snail, Chinese Mystery Snail, Eurasian Water-Milfoil, Hybrid Eurasian / Northern Water-Milfoil	1	
3. Teal*	1,024	31 (15 mean)	Chinese Myster Snail	1	Many islands & sandbars; only 9% is over 20'
4. Ghost*	384	12 (5 mean)	n/a	1	Impaired - mercury
5. Clear*	250	25	Purple Loosestrife	1	
6. Lower Clam	214	30	n/a	1	
7. North*	132	30 (14 mean)	n/a	0	
8. Christy	122	10	n/a	0	
9. Star	106	15	n/a	0	
10. Wilson	103	25 (6 mean)	n/a	0	
11. Ole	88	30 (11 mean)	n/a	0	
12. Holmes	62	22	n/a	0	
13. Beaver	59	15	n/a	0	
14. Lewis	52	15 (9 mean)	n/a	0	
Shared					
1. Hadley (has 60%+; rest in Namakagon, Bayfield Cty)	59	17	n/a	0	
2. Patsy	55	13	n/a	0	

* Known Lake Associations:

- Spider Chain of Lakes Assn. (also includes Clear Lake, North Lake)
- Teal/Lost Land/Ghost Lakes Improvement Assn.

Note: these are lakes greater than 50 acres.

Speed Limit

TOSL Boating Ordinance Ad Hoc Committee

Sub Committee: Speed Limit

Tom Oatman – Big Spider Lake

John Trombello – Teal Lake

Speed Limit Recommendation

After independent research by both sub committee team members and then a collaborative review based on that research, it is the recommendation of this sub committee to retain the current 10 m.p.h. speed limit boating ordinance (as defined in [Section 5a of TOSL Ordinance #02 – 2024](#))

The exception would be during the time of 11:00 a.m. and 3:00 p.m. on those lakes specified in the ordinance where the speed limit would be lifted.

Historical Perspective

- The Town's 2018 Comprehensive Plan states that maintaining the northwood's character is a major issue facing the Town. (Source: [Town Of Spider Lake Comprehensive Plan 2018](#))
- The current boating ordinance intent is to provide **safe and healthful conditions** for the enjoyment of aquatic recreation and protect the natural resources. (Source: [Town Of Spider Lake Boating Ordinance #02-2024](#))
- The Town's boating ordinance regulating a speed limit of 10 m.p.h. on the Town lakes has been in effect in some form or fashion since 1956.
- A substantial number of property owners in the TOSL acquired their properties subsequent to the enactment of the boating ordinances.

Historical Perspective - Continued

- In 1963, the Sawyer County Circuit Court upheld the boating ordinance for Lost Land and Teal due to evidence of unsafe boating conditions. The unsafe Lake conditions that existed in 1963 continue to exist today. (Source: [Zajac vs. Town Of Spider Lake](#))
- **In a 2020 Spider Chain Of Lakes survey:**
 - 65%+ believed that the current water skiing hours should **not** be expanded.
 - 73% stated there were not too many boating restrictions.
 - #2 on the priorities list related to maintaining peace and quiet on the lakes
 - #3 on the priorities list was to preserve the northwoods character. (Source: [Spider Chain Of Lakes Shoreland Property Owners Survey Report September 2020](#))

Historical Perspective - Continued

- **In a 2023 Town survey:**
 - The **majority** (62%) of the respondents strongly agreed with the boating ordinance in its then current form
 - A small **minority** (18%) considered water skiing/jet skiing an important activity.
 - Sources:
 - Property Owner Survey Results Town of Spider Lake 13 December, 2023
 - Town Of Spider Lake Vision Assessment Ad Hoc Committee Survey Summary Report and Appendices of all survey responses

Basis for Recommendation

- **Per TOSL ORDINANCE #02 – 2024:**
 - This ordinance is authorized by Wis. Stat. § 30.77(3) and is adopted in the interest of public health, public safety, and welfare, including the public's right and interest in preserving the state's natural resources and wildlife.

Basis for Recommendation – Continued

- **Public Safety Perspective**

- Regulating high-speed activities will reduce the risks to public safety by separating those activities (waterskiing, tubing, and jet-skiing, etc.) from low-speed and non-motorized activities (paddle boarding, kayaking, canoeing, sailing, and swimming, etc.).
- Higher watercraft speeds increase the potential of accidents (collision, capsizing, running aground, negative effects on non-powered watercraft (sailboats, canoe, kayak, SUP, swimmers, etc.).

- **Sources:**

- Wisconsin DNR - Share The Water And Slow Down To Keep Waters Safe For All:
<https://dnr.wisconsin.gov/newsroom/release/97146>

Basis for Recommendation – Continued

- **Preserving Natural Resources And Wildlife Perspective:**
 - The Common Loon is a symbol of the "northwoods character". Slower watercraft speeds allow the operator to be in an enhanced position to adjust to any conditions on the lake including as wildlife.
 - Per a Sierra Club article, the northern Wisconsin Common Loon population has declined by 22% over the last 25 years, with the population decreasing by as much as 6% each year.
 - Northland College recommends keeping a 200 foot distance from loons, never run motorboats or personal watercraft over areas where loons have been seen as loons and loon chicks have died from being hit by boats and propellers.
 - Source: <https://www.sierraclub.org/wisconsin/blog/2024/07/common-loon-symbol-northwoods>. and Northland College: Protect Loons Do Your Part)

Basis for Recommendation – Continued

- **Preserving Natural Resources And Wildlife Perspective (Continued):**
 - The Common Loon is protected by State and Federal laws as a migratory, nongame bird. It is also a species of Special Concern in Wisconsin.
 - Source:
 - Common Loon Facts And Phenology: <https://www3.uwsp.edu/cnr-ap/UWEXLakes/Documents/programs/convention/2008/ThursPM/FactsPhenologyCallsRevised.pdf>)

Basis for Recommendation – Continued

- **Public Health Perspective:**

- Boats and PWC's (jet skis) driving at higher speeds outside of the water sports hours would add an additional "Noise" factor which is not conducive for health or for quiet lakes. High noise levels can also disrupt wildlife communication, reproduction, and feeding habits, causing significant harm to ecosystems.

- **Sources:**

- NIH National Library of Medicine - Environmental Noise Induced Effects:
<https://pmc.ncbi.nlm.nih.gov/articles/PMC6878772/>
 - Understanding The Effects Of Noise Pollution From Boat Engines:
https://dec.vermont.gov/sites/dec/files/wsm/lakes/docs/lp_Impacts_of_Motorboats_Fact_Sheet_2016_12_30.pdf

Basis for Recommendation – Continued

- **Public Health Perspective:**

- **Sources – Cont.:**

- Wisconsin DNR - Overview of Impacts of Motorized Watercraft on WI Lakes:
<https://www.youtube.com/watch?v=Fv7R45IslBY>
 - Wisconsin DNR - The Effects of Motorized Watercraft on Aquatic Ecosystems:
<https://static1.squarespace.com/static/589d2006ebbd1a9c437fd84a/t/5b328a3a1ae6cf60dcce148f/1530038842866/Boat+Wake-Boats-effects-on-ecosystems+WDNR+U+of+W.pdf>
 - Wisconsin DNR – An Overview of Boating Impacts on Lakes:
https://genevalakeassoc.org/images/pdf/Motor_Boat_Impacts_2021.pdf
 - Science Daily: Pleasure Boat Speed Limits Can Stir Up Trouble In Shallow Lakes:
<https://www.sciencedaily.com/releases/2001/11/011112073736.htm>

Recommendation Summary

- **In addition to the Public Safety, Public Health, and Preserving Natural Resources perspectives:**
 - Currently many PWC owners enjoy operating their machines during water sports hours. The noise factor is significant. However, at 3PM, they typically navigate back to their docks or reduce their speed to ≤ 10 mph. Should the speed limit be increased or water sports hours be expanded, PWC activity would expand as well creating a negative impact on residents.
 - Increasing the 10 mph limit to allow boats to plane would result in higher speeds, an increase in noise factor, and present greater safety issues with submerged lake obstacles.

Recommendation Summary - Continued

- **In addition to the Public Safety, Public Health, and Preserving Natural Resources perspectives - Continued:**
 - The current ordinance is actually a compromise and least restrictive as it stipulates the time for higher speed activities (i.e. water and jet skiing) and allocates other times for lower speed activities (i.e. sailboats, canoe, kayak, SUP, swimmers, fishing, nature watching, etc.); thus, avoiding a conflict between these uses.
 - **Most importantly**, modification of the current speed limit ordinance would be contrary to the majority of the survey respondent desires and could result in substantial divisions within the TOSL community.

Water Sports Hours

Water Activities Hours

Water Activity Hours

- Recommend keeping Teal Lake and Lost Land Lake a quiet lake with a ban on waterski, jet ski, wake surfing and tubing. The unique lake characteristics such as water depth, invasive species, weeds, under water hazards make it unsafe for these activities.
- Expand the water activity hours in Spider Lake Chain to 11AM-5PM.

Rationale

- Boat safety can be enhanced by spreading out the time on the lake.
- No evidence that boat volume would increase since the location of Spider Lake is not convenient for day trips. Most boats launched daily are fishing. Peak water activity is over Memorial Day weekend, Fourth of July week, and Labor Day weekend.
- Minimal environmental impact if Wisconsin statute of 100' from shoreline and 200' from other boaters is followed. Wind, weather and water depth fluctuations can have a bigger impact on shoreline erosion.
- Allows vacationers, who are usually family members and friends of property owners, to maximize their time on the lake. They can do other family activities in morning and still have time on the lake later in the afternoon.
- Weather plays a role in that it could be bad in morning but clear up later in the day.
- Addresses WDNR report as ordinance being too restrictive. Shows willingness to compromise.
- Enforcement will always be concern no matter what the hours.
- Based on SCLA survey the volume of Jet ski's is fairly low-5%

Water Activities Hours

Main Data Sources

WDNR report

Review of other neighboring lakes-Round Lake, Twin Lakes, Lake Owen , Flowage

Stakeholder responses

Wind energy study that Michelle reported on

SCLA survey

Other outstanding questions

Court costs of keeping ordinance in place as is.

Enforcement

If town loses in court ordinance can be thrown out entirely opening up water activities on all township lakes.

Enforcement

ENFORCEMENT: Do towns with wake boat ordinances have enforcement?

- Most do not have it. Crystal Lake has a contract with the Sheriff
- Ripley Lake uses a boat patrol
- Towns can use any employee for enforcement. Example: Fire Chief
- A few use Sheriff for writing a citation only. Evidence is a video taken by civilians.
- Note: These towns only have the one ordinance to enforce. The Spider Chain also has quiet hours to enforce.

A FEW DETAILS ON WAKE BOATS

- Can wake boats be used as regular boats? Yes, by not using the ballast tanks, the hydrofoils, or any other devices that create enhanced wakes.
- Are there different designs of wake boats? Yes, and there could be more coming. That is why the ordinance needs to ban the activity, not the boat.
- What speed is needed for wake surfing? About 10 mph, so the speed limit ordinance does not restrict wake surfing.

RECOMMENDATION to TOSL

- Immediately enact a stand alone local ordinance banning wake surfing and all activities that use enhanced wakes.
- “Last Wilderness Alliance” is available to assist. They have the legal and technical expertise (including 4 attorneys and a PHD Limnologist) plus document templates.

RECOMMENDATION to TOSL

- Points to stress to Spider Lake residents and property owners on the lakes within the town:
 - **Safety:** Enhanced wakes needed for wake surfing endanger participants of all other water activities.
 - **Spread of AIS:** Ballast systems are very likely to spread zebra mussels, spiny water fleas, and quagga mussels.
 - **Enhanced Wake Damage:** shorelines, lake bottom, personal property, fish spawning beds, loon nests, native plants.
- Final note: Many towns around TOSL have restrictions. Don't be one of the few without an ordinance.

BOAHC

BOATING ORDINANCE ENFORCEMENT

Recommendations, Justification, Data Sources and Outstanding Questions and Issues.

- 1) **Recommendations;** Place slow no wake buoys in key locations, establish a committee to discuss potential placement areas. The TOSL would be required to apply for these permits. The following slide provides the details from the WDNR on the application process.
- 2) The goal of strategically placing official slow no wake buoys is recommended to help protect known loon nesting sites on the lakes. The passage known as the thoroughfare connecting Lost Land and Teal lakes is especially vulnerable to boat wakes since the channel should fall under the 100' distance from shore as a no wake area. If you are travelling through the middle of the channel, you are not more than 50 to 75 feet from either side at any time. These official slow no wake buoys are backed up by state statutes and can be enforced by any law enforcement entity we work with including the WDNR and the Sawyer County Sheriff's dept. These buoys give the Town reason to ask for help with enforcement and create a law enforcement presence on our lakes.

For regulatory buoys such as slow-no-wake buoys, an ordinance that specifically states where the slow-no-wake area and buoys are to be located is required. Here is an excerpt from the Waterway Marker Guidebook:

Regulatory waterway markers (slow-no-wake, prohibited entry, etc.) require an ordinance. See Local Boating Ordinance section of these Guidelines.

- A draft ordinance must be reviewed by the local Recreation Warden (RW) 60 days before the approved governing entity can vote on it.
- The approved governing entity must provide a public hearing.
- The approved governing entity shall give public notice of the date, location and boating ordinance to be discussed, in at least one local newspaper, 30 days before the vote.
- Upon enactment, the approved governing entity must send a signed copy of the ordinance and proof of public notice to the local RW.
- **Generally speaking, only approved governing entities and counties (not individuals or associations) have the authority to apply for regulatory waterway markers permits and pass local ordinances.**
- Adjacent riparian landowner permission is not required, provided the application meets all the requirements under s. 30.74, Wis. Stats., and s. NR 5.09, Wis. Adm. Code, including local authorization, department approval, and compliance with other regulatory specifications.

Please review the attached document for more information regarding the permit process as well as the ordinance process. In addition to having myself review an ordinance and the permit, the local field warden will also be involved with approving the permit.

I hope that helps and gives some starting information. Let me know what other questions you have.

Madeleine E. Johansen

Phone: 715-939-2545

madeleine.johansen@wisconsin.gov

Further recommendations

We had a meeting with the Town of Hayward Police Dept and spoke with Chief John Kosterman. Several key points need to be considered. This is 1 person PD for the TOH.

#1) Chief Kosterman is leaving the dept as of January 1st 2025. This is unfortunate as Chief Kosterman said he would be in favor of working with the TOSL on enforcement of the Town ordinances. A replacement has not been announced. Chief Kosterman said that even if he wanted to work with the TOSL that the final decision would be up to the Town Of Hayward Board. Kosterman suggested the TOSL talk directly to the TOH to negotiate an agreement. Now might be a good time to engage in a conversation between the two town boards while they are in transition. Additional funding from the TOSL might help the TOH fill the position sooner and possibly with more officers and equipment such as a water patrol boat. The town budget for the PD is under \$100,000

#2) Kosterman recommended we look to hiring our own law enforcement person and establish our own PD for the TOSL. With our own enforcement officer, the WDNR has programs to help us offset the cost. The WDNR has an agreement where costs can be reimbursed through what is known as “An Intent To Patrol” program. **We are looking for more details on this program.**

#3) Kosterman suggested with our own law enforcement arm we should establish a municipal court to process fines. We would need to hire or appoint a judge. Wisconsin offers training for the new position as judge. The TOH has these things and does it with a budget of under \$100,000 annually.

On the recommendation of Chief Kosterman, we reached out to Phil Nies.

Phil Nies is very active in local government and is the former VP of the Sawyer County Lakes Forum. Phil has been instrumental in crafting language used in many of the “wake enhancement” ordinances adopted by several of our neighboring towns, including Bass Lake, Hunter, Round Lake and the Town of Hayward. I suggest we ask Phil to join our group as a guest at some point with the goal of gaining a ton of background knowledge. Phil has been heavily involved in boating ordinances over the past 10 years.

2) **Key reasons and data supporting recommendation;** Unless we establish our own law enforcement arm within the TOSL to enforce the town ordinances the Sheriffs dept and the WDNR do not have any authority and / or are unwilling to enforce the 10MPH speed limit or limited recreational water sports such as jet skis, skiing, tubing and wake surfing unless it is backed up with a State Statute. Only the no wake 100' from shore for boats and 200' for PWC's and official slow no wake buoys are backed up with state statutes.

3) **List of data sources;** Direct conversations with the Sawyer County Sheriff Doug Mrotek, the WDNR Game Warden Madeleine Johansson, Town Of Hayward Police Chief John Kosterman, City Of Hayward Police, Assistant Police Chief Jacob Anderson and the Town of Hartford Wisconsin, townofhartfordwi.gov Marine Patrol Unit, town of Hartford Chapter 11 municipal codes, ordinance number 11.

4) **Additional documentation to be included that will be part of the final recommendation;** Letter from the WDNR to the TOSL, email response from the WDNR. Form 8700-58 Waterway Marker Application and Permit.

5) We are looking in to the “intent to patrol” program from the WDNR

Municipal Water Safety Patrol Manual

ELIGIBILITY FOR STATE AID

The unit of government authorizing the patrol must contain at least one of the following within its jurisdiction:

- A lake of at least 100 acres in size, determined by the current Department lake survey; **OR**
- At least one mile of river within the jurisdiction of the unit of government.

Wisconsin Statute s. 30.79 and NR 50.13, Wis. Adm. Code, are the operational laws for Water Safety Patrols. They define terms, discuss enforcement powers, define jurisdictions, and define the criteria for receiving reimbursement. To be eligible to receive state aid, the water safety patrol unit must meet the following requirements and deadline dates. These requirements are the law and exceptions will not be made.

WATER SAFETY PATROL DEFINITION

A "water safety patrol unit" means a unit within an existing law enforcement agency or a separate municipal agency created by a municipality or by a number of municipalities riparian to a single body of water for the purpose of enforcing Sections 30.50 to 30.80, Wis. Stats., and any rules and ordinances enacted pursuant thereto. The definition of municipality includes public inland lake protection and rehabilitation districts and lake sanitary districts, but does not include lake associations.

MUNICIPAL WATER PATROL OFFICERS

All municipal water patrol officers must be certified law enforcement officers. Per s. NR 50.13, Wis. Adm. Code, patrol officers must be certified by the end of the calendar year in which they patrol. As Law Enforcement officers, they are subject to the certification requirements of chs. LES 2 and 3, Wis. Adm. Code, the standards adopted by the Uniform Law Enforcement Standards Board pursuant to s. 165.85, Wis. Stats. All questions and verification of qualifications under the act should be addressed to the Department of Justice, Training and Standards Bureau, 123 West Washington Avenue, Madison, Wisconsin 53703, (608) 266-8800.

WATER SAFETY PATROL MISSION

- To detect and investigate alleged boating law violations.
- To enforce s. 30.50 to 30.80, Wis. Stat., and local ordinances written under s. 30.77(3).
- To be immediately available to perform search and rescue missions for individuals reasonably believed to be alive, in distress, and in a life-threatening situation.

This program might give the TOSL and neighboring towns the ability to offset costs related to developing our own enforcement entity.

The TOSL Board should contact the neighboring towns of Hunter, Bass Lake, Round Lake and Town of Hayward.

Rules and Ordinances enacted pursuant thereto?

REIMBURSEMENT

Municipalities may receive law enforcement aids for up to 75% of the net costs (determined by deducting all fines and forfeitures imposed upon persons convicted of violations of ordinances enacted pursuant to s. 30.77, Wis. Stats.) which are directly attributable to the operation and maintenance of the water safety patrol unit. State aid is available only for those activities associated with the local enforcement of ss. 30.50 to 30.80, Wis. Stats., and any administrative rules and ordinances enacted pursuant thereto. No municipality may receive state aid in excess of 20% of the State funds available. In addition, the following guidelines must be met for a water safety patrol unit to receive state aid for costs:

1. On-the-water patrol hours for each water safety patrol are fundable based on a formula of the number of on-the-water patrol hours per arrest. The maximum number of on-the-water patrol hours per arrest shall be not more than 50% above the state average of on-the-water patrol hours per arrest for the past 3 years computed from the statewide municipal patrol records. This ratio may not be less than 15 on-the-water patrol hours per arrest for inland waters and no less than 22 for outlying waters (Lakes Michigan, Superior and Green Bay waters). Patrols with a ratio of on-the-water patrol hours per arrest in excess of the maximum ratio may be funded only for those hours that result in a ratio equal to the maximum ratio allowed.
2. Two (2) documented written warnings will be given the same weight as an arrest. No more than 50% of the credits to reach the standard may be for written warnings.
3. The maximum number of fundable crew members shall be limited to two certified law enforcement officers per boat on inland waters.
4. The maximum number of fundable crew members shall be limited to three certified law enforcement officers per boat on outlying waters.
5. No patrol may receive more than 30% of the total amount of its claim for administrative costs. Administrative time that exceeds 30% of the total number of hours claimed on form 8700-61 is not eligible for reimbursement. Hours claimed for teaching boating safety education courses do not count as administrative time, rather should be included as Exempt Hours.
6. A patrol may be reimbursed for the actual teaching hours of a law enforcement officer who conducts an authorized department boat safety education course. Teaching hours are considered exempt hours and may not be included in the patrol hour totals. Reimbursement will be limited to two (2) boat safety education courses per patrol year.
7. General towing of boats is not fundable unless the party on board is in distress/danger and in a life-threatening situation or the lack of a tow would place the party in distress or danger and in a life-threatening situation. Patrols must keep accurate accounts of any boats towed on the Enforcement Patrol Daily Log (Form 8700-89).
8. Perform at least 80 hours of fundable on-the-water patrol time during the calendar year. On-the-water means patrol time spent in a boat enforcing boating laws. The intent of the aids program is to provide funding for enforcement work conducted on-the-water, not from a parking lot or roadway.
9. Have at least one water safety patrol representative attend a water safety patrol meeting or other designated training session when offered by the Department. This person will be responsible for taking information received at the training session back to their agency and its officers.

#2) Written warnings will be given the same weight as an arrest.

Most law enforcement officials suggested we do not issue a lot of tickets, just warnings.

Municipal Water Safety Patrol Manual

and a description of the item. Vouchers must be authorized and signed by the proper local officials and have been paid during that year of patrol operation. Reimbursement is restricted to water safety items purchased for boat patrol enforcement purposes. The primary consideration is how the item is to be used, since the same item may or may not be reimbursable depending on its use in the enforcement of ss. 30.50 to 30.80, Wis. Stats., and local boating ordinances. Those items used for other purposes along with fundable purposes will be prorated based on time of use in each area.

See list of reimbursable or non-reimbursable items. It is a good business practice to contact your Recreation Warden before purchasing items not authorized.

Reimbursable Expense Items Under \$2,500	Non-Reimbursable Items
• Anchor • Badges • Batteries • Boat Bumpers • Crane Service for launching • Depth finder/GPS/Imaging navigation units up to \$500 with justification and approval of the local recreation warden. • First Aid Kits • Gas and Oil for boats only • Insurance for boats and related equipment. Workers compensation and liability insurance should be included in the Fringe Benefit Rate • Maintenance Labor • Mileage-transporting boats. Use the mileage rate approved by Federal Internal Revenue Service. • Office supplies <u>directly</u> related to the water patrol functions • Paint for boats or equipment used for enforcement efforts. • Personal Flotation Devices (PFDs) • Propellers • Radar/Plotter Equipment—for Outlying Waters agencies only, reimbursement up to \$2,500 with justification and approval of the local recreation warden. \$2,500 for this type of equipment shall be placed on the Depreciation Schedule. • Radio Equipment. • Radio Service Repairs • Rope • Sirens / Emergency Lights • Sound enforcement equipment * • Spot Lights • Storage • Trailer Hitches • Training: must have Recreational Warden's prior approval to receive reimbursement for training other than annual patrol training • Travel: reimbursement of registration fees, lodging, meals, and transportation to attend Safety Certification for Patrol Officer, DNR Boat training sessions and other DNR Authorized Training • Tools - limited to a small kit for on water maintenance/emergencies • Uniforms for water patrol related activities. • Vision enhancement devices, included range finders, up to \$250.	• Accounting fees • All outside training not approved by Recreation Warden. • Ammunition, duty gear, officer id cards • Any DOJ related recertification training. • Attorney Fees • Audio Digital Recorders • Automatic External Defibrillator units or training • Background Investigation Expenses • Body Cameras • Body recovery kits • Building or maintenance of boathouses and related costs. • Buoys or buoy placement related work as this is not a water patrol responsibility. (A mooring buoy for tying up the patrol boat would be reimbursable). • Costs associated with signs stating local or state regulations. • Cell phones, accessories or monthly service fees outside of the patrol season. • Computers, Tablets, Computer software • Internet fees for more than one half of the patrol year • Costs associated with scuba or other equipment used in searching for or recovering bodies or lost objects. (Such as inflatable rubber boat for scuba work, scuba diving suits, weights, etc.) • Drug Screening for employees • Hover Craft • Life Jacket Station supplies • Local ordinance staff time, signs, or advertising/notification • Motor Vehicle repair • Narcan or training • Office rent in excess of 6 months • Officer Duty Gear • Re-Certification ammo • Rifles/Shotguns • Rifles/Gun Racks for boats • Stand-alone Side Scan sonar units • Tazers • Training to meet the requirements of annual recertification is not reimbursable unless it is marine-enforcement related and pre-approved by the Recreation Warden. • Video Microphones

***Sound Enforcement Equipment.** Patrol agencies should meet with the Recreation Warden to receive approval prior to purchasing or receiving reimbursement for sound level meter related equipment (i.e. sound meter, calibrator, wind screen). Factors to be considered:

1. The patrol can demonstrate a need, reference complaints, observed violations, prior citations, and or heavy recreational vehicle.
2. Its officer(s) using the meter, possess an 8-hour or more sound level training certificate. Examples would be the DNR's 8-hour training program with certificate or a training program w/certificate approved by the Recreation Warden that meets the parameters of our training.
3. The meter, calibrator, and wind screen meet specific standards as outlined in the DNR training manual.
4. When it comes to purchasing a meter, calibrator, and wind screen they should be considered as a single kit or purchase.

Testing Instrumentation & Equipment. The specifications for a sound pressure level meter will be as follows:

- Type 1 precision sound pressure level meter meeting IEC standard 61672-1 and ANSI standard S1.4 for Type 1 meters.
- The meter shall have a sound level calibrator meeting IEC Standard 60942 and with an accuracy of ± 0.2 DB conforming o IEC942 class 1 and ANSI S1.40-1984 standards.
- A microphone wind screen that does not affect the overall reading by more than ± 0.5 DB.
- The meter shall be designed for a weighting network readings.
- The meter shall be able to read for slow dynamic response.
- The meter shall be designed to display the maximum sound pressure level observed by the meter and displayed during the previous second.
- The meter shall have an auto resetting response display every second.
- The meter shall have a max hold display with a manual reset function or switch.
- The meter display shall read to 000.0 DB.
- The meter shall have a low operating temperature, 14 degrees Fahrenheit or lower is desirable
- The meter shall have a high humidity operating range, above 90% humidity is desirable.
- The meter shall be of a free field microphone characteristic and designed to be pointed directly at the noise source.
- The meter shall be battery powered.
- The meter, calibrator, wind screen and all other equipment shall be contained in a waterproof and shock-resistant portable container.

Depreciation Schedule Form 8700-063 – Purchase of capital equipment shall be pre-approved by the Department. Requests to purchase capital equipment must be communicated with the local Recreation Warden prior to the purchase of said equipment. Be prepared to provide equipment specifications and answer questions specific to the equipment.

In the interest of providing statewide consistency and equity in the grant reimbursement program, approval will be based upon the reasonableness and appropriateness of the requested equipment for the waterbodies being patrolled.

Depreciation shall be calculated at the rate of 20% annually for each new item of capital equipment for which the cost is \$2,500 or greater}. All costs of repairs \$2,500 or greater to an item of capital equipment shall be reimbursed

<https://widnr.widen.net/s/lhwhcjtszz/le0318>

Form 8700-059A intent to patrol

on a 20% per year straight line depreciation schedule. All reportable items must be actually paid for by December 31 to be included. This form doubles as an Inventory Record. Items should remain on this form until sold.

Under the straight-line depreciation method established, the patrol's depreciation expense is incurred each year. Accordingly, depreciation from prior years would not be a patrol expense for the preceding year. Under NR 50.13(4)(d), the local patrols submit forms covering the patrol expense for the preceding 12-month period/calendar year.

Due to Generally Accepted Accounting Principles, if a patrol submits a claim that does not meet the minimum eligibility requirements, they lose a year on their depreciation schedule and the "lost" year of depreciation cannot be claimed on any subsequent claims. In addition, if the patrol does not submit a claim, they also lose that year on the depreciation schedule and cannot claim that amount on any subsequent claims.

Reimbursable Capital Items: \$2,500 or greater - Must have Recreation Warden's prior approval before purchasing capital items.

- Boats
- Motors
- Trailers
- Repairs/Rebuilds

Record of Violations Form 8700-064 - Patrols will maintain the Record of Violations for each citation and written warning issued. Two documented written warnings will be given the same weight as an arrest. No more than 50% of the credits to reach the standard may be for written warnings. It is suggested that patrols keep copies of citations and written warnings in chronological order in one file.

A Department representative may check with the municipality to determine that all convictions of state violations as shown by fines collected have been reported on Form 4100-70B (Report of Disposition).

Patrols writing citations through municipal court must send a copy of the citation to the Recreation Warden once it has been adjudicated. Citations are reviewed and entered into the Department's citations database.

Patrols must keep copies of their adjudicated citations to supplement patrol audit records and must be available in chronological order for review upon request.

Citation issued in TraCS on a DNR Citation through Circuit Court

- Citation including disposition is uploaded to the GO WILD Citation System. No additional data entry needed.

Citation issued in TraCS on a DNR Citation through Municipal Court

- Citation is auto-uploaded to the GO WILD Citation System
- Patrol agency must mail the disposition, which is then entered by WDNR Hotline staff
- Disposition entry is not automated as we do not have an interface with municipal courts.

Citation issued as a Non-Traffic Citation in TraCS

Boats, Motors, Trailers and repairs are eligible for reimbursement with authorization.

Adjourn